

CLAIMS

What is claimed is:

1. An apparatus for indicating a connection state of an input/output cable, comprising:
 - an indicator that is a communication device between an AT Attachment Packet Interface (ATAPI) drive and a host interconnected via the input/output cable and that indicates in response to a control signal whether the AT Attachment Packet Interface (ATAPI) drive is connected to or disconnected from the host via the input/output cable; and
 - a controller that sets a flag to check the connection state of the input/output cable, when power is applied to the AT Attachment Packet Interface (ATAPI) drive, and outputs the control signal to the indicator to indicate that the input/output cable is not connected to the host when a command is not received from the host for a predetermined period of time.
2. The apparatus of claim 1, further comprising a timer that counts a time required for receiving the command from the host.
3. The apparatus of claim 1, wherein the indicator is a light emitting diode that turns on in response to the control signal output from the controller, when the host is connected to the AT Attachment Packet Interface (ATAPI) drive via the input/output cable, and turns off when the host is not connected to the AT Attachment Packet Interface (ATAPI) drive via the input/output cable.
4. The apparatus of claim 1, wherein the controller clears the set flag when the command is received from the host for the predetermined period of time.
5. The apparatus of claim 1, wherein the controller clears the set flag after the indicator indicates that the input/output cable is not connected to the host.
6. A method of indicating a connection state of an input/output cable via which an AT Attachment Packet Interface (ATAPI) drive communicates with a host, the method comprising:

when power is applied to the AT Attachment Packet Interface (ATAPI) drive, setting a flag that checks the connection state of the input/output cable;

if a command is not received from the host for a predetermined period of time after the flag is set, commanding a timer to increase a time counter; and

if the increased time exceeds a reference time, indicating that the input/output cable is not connected to the host.

7. The method of claim 6, wherein in commanding the timer to increase the time counter, if the command is received from the host within the predetermined period of time, the set flag is cleared.

8. The method of claim 6, wherein after the indication that the input/output cable is not connected to the host, the set flag is cleared.

9. The method of claim 6, wherein if the command is received from the host, the set flag is cleared.

10. The method of claim 6, wherein if the command is received from the host, signaling that the input/output cable is connected.

11. An apparatus for indicating whether an input/output cable is connected between an ATAPI device and a host device, comprising:

a controller, coupled to the ATAPI device and an input/output interface to check for a command signal from the host device and selectively outputting a control signal depending on whether a command signal from the host device was detected;

an indicator responsive to said control signal to indicate to a user whether the input/output cable is connected between the host and the ATAPI device.

12. The apparatus of claim 11, further comprising a timer circuit configured to increment a time counter each time the controller checks for the command signal and does not detect a command signal; and

wherein the controller compares the timer counter to a predetermined time period and if the time counter is greater than the predetermined time period, the controller outputs a control signal to the indicator and stops checking for the command signal.

13. The apparatus of claim 11, wherein the indicator illuminates at least one light to visually indicate the status of the input/output cable.

14. The apparatus of claim 13, wherein the indicator turns on an LED to indicate that the input/output cable is not connected and turns off the LED to indicate that the input/output cable is connected.

15. A method of indicating whether an input/output cable is connected between an ATAPI device and a host device, the method comprising:

setting a flag in a controller in the ATAPI device;

checking for a command signal from the host device if the flag is set;

incrementing a counter if no command signal was detected;

comparing the counter to a predetermined limit and if the counter is greater than the predetermined limit sending a control signal to an indicator for indicating that the input/output cable is not connected and clearing the flag; and

if the command signal was detected sending a control signal to an indicator that the input/output cable is connected and clearing the flag.